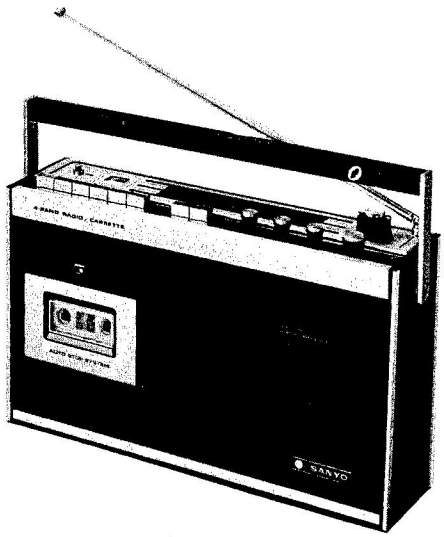
SANYO

SANYO
PORTABLE RADIO
CASSETTE RECORDER
RP 8500
SERVICE MANUAL



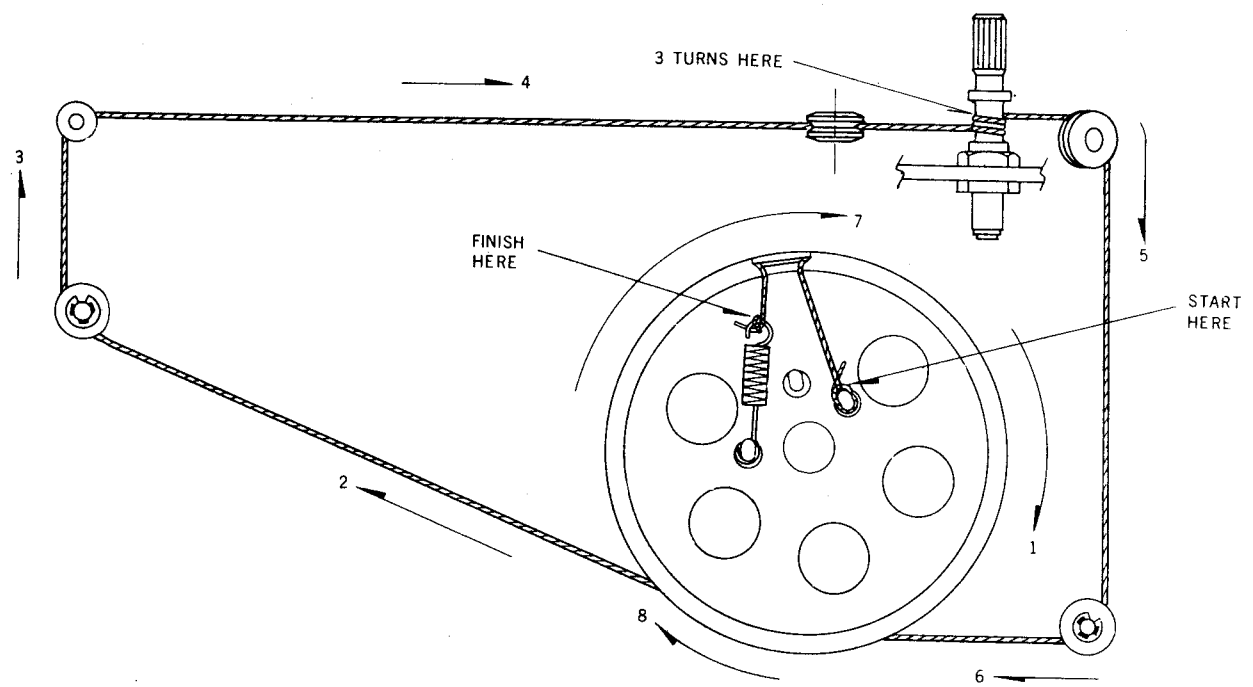
A PRODUCT OF SANYO ELECTRIC CO., LTD.

SPECIFICATIONS

Frequency Ranges:	FM	87.5 - 108 MHz
	MW	510 - 1605 KHz
	SW1	2.3 - 7.3 MHz
	SW2	7.3 - 22.0 MHz
Intermediate Frequency:	FM	10.7 MHz
	AM	455 KHz
Sensitivity:	FM	2.5 μV (for S/N 20 dB)
	MW	3.2 mV/m (for S/N 6 dB)
	SW1	30 μV (for S/N 6 dB)
	SW2	20 μV (for S/N 6 dB)
Power Output:	Maximum	1.5W
	Undistorted	1.1W
Power Source:	DC 7.5V; five 1½ volt "size-D" batteries (or equivalent)	
	AC household current; 240V 50 Hz for Australian Area	
	120V/200V/240V 50/60 Hz for general market	
Current Drain:	Radio: No signal 25mA	
	Maximum 230mA	
	Recorder: No signal 75mA (at Playback)	
	Maximum 280mA	

Recording System:	AC bias
Erasing System:	AC erasing
Recording Time:	30 min. (C-30 cassette tape)
	60 min, (C-60 cassette tape)
Tape Speed:	1-7/8 ips.
Fast Forward- and Rewind Time:	60 sec. (C-30 cassette tape)
	Input signal level: 100 mV (100K ohm impedance)
	Output signal level: 45 mV (80 K ohm impedance)
Speaker:	4" x 6" permanent dynamic type, 4 ohm impedance
Dimensions:	14-1/4" Wide x 8-1/4" high x 3-3/4" deep
Weight:	Approx. 7-1/2 lbs.
Accessories:	Demonstration tape (C-12)
	Microphone
	Earphone

DIAL CORD STRINGING



HOW TO TAKE OUT CHASSIS

1. Remove Band Selector knob, Tuning Control knob and other three control knobs by pulling them off.
2. Loosen two screws on the cabinet back and one in the microphone compartment, then open the back.
3. Loosen five screws (red colored on their heads), two of which secure the circuit board, other two for mechanism fixing and the other one fastens a negative battery terminal plastic.
4. Disengage the circuit board with the cabinet front.
5. Remove a hex. head screw which secures the mechanism on the cabinet.
6. And now you can take out the whole chassis (containing the circuit board and the mechanism assembly).

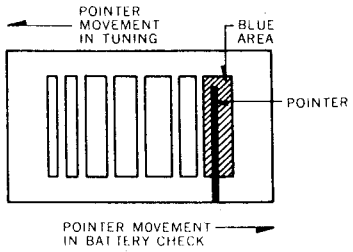
ALIGNMENT PROCEDURES

CORRECT BIASING FOR INTEGRATED CIRCUIT

A mini-pot (R318 50K ohms) is incorporated in this unit to provide correct biasing for IC-301 (LA1201B). The mini-pot is adjusted and set in such a way as to develop about 0.5 volt between the terminal J-4 and J-6, showing maximum IF response.
In order to measure this value, use a 100 microampere range of circuit tester and connect a 50K ohm resistor with one of its terminals in series. A reading of 10 microamperpes on the meter corresponds to 0.5 volt.

METER ADJUSTMENT

Supply 7.5V DC to the unit and set the unit in RADIO mode for MW band reception.
Place a radio dial pointor at a position not to receive any station signal.
Adjust a mini-pot (R323 50K ohms) so that the pointer deflects as far as the leftest blue area.
Now set the band selector switch at FM position and confirm that the pointer still stays in the blue area.



RECORDING BIAS

Supply 7.5V DC to the unit and set the unit in a recording mode.
Connect VTVM across R762 (10 ohms).
Adjust a mini-pot (R763 50K ohms) so that VTVM reads 5.5 mV AC.
(In other words, a recording RF bias current should be 550 μA.)

ERASING CURRENT

When frequency of the bias current is either lower or higher than the normal frequency range, an erasing current thru ERASE Head become insufficient in quantity due to inadequate impedance. Average erasing current should be around 90 mA. This measurement is made by inserting a resistor of 1 ohm in series with ERASE Head and by applying VTVM across the resistor.

ADJUSTMNT (Mechanism)

PINCH ROLLER TENSION

1. Set the unit in play mode.
2. Connect a tension gauge to the pinch roller. Read the gauge at the precise moment when the pinch roller separates from the capstan.
3. If this tension falls within the range of 270 - 320gr/cm, no adjustment is needed. Otherwise, reset the pinch roller spring (13) into another hole.
4. In play mode, the gap between pinch roller stopper (A) and pinch roller arm must be 0.7 - 1.2mm. Otherwise, adjust the angle of the pinch roller stopper by bending it. (Fig. 1)

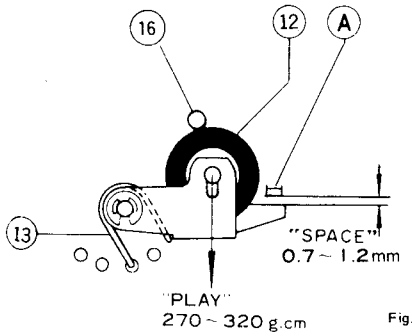


Fig. 1

REWIND TORQUE

1. Set the unit in rewind mode.
2. Clean drive belt (41), flywheel (16), motor pulley , pulley (27), idler (29) and rewind roller (34) with alcohol.
3. Measure the rewind torque with a torque meter. It should be more than 55gr/cm. (Fig. 3)
4. If the rewind torque falls below 55gr/cm, check the pressures of the idler roller (29) which should be 140gr/cm and of the rewind roller (34) which should be 40gr/cm. (Fig. 4)

POSITION OF FLYWHEEL

The gap between the flywheel (1) and the flywheel support plate should be 0.15 - 0.4mm. It can be adjusted by turning the screws on the side of the plate (Fig. 5)

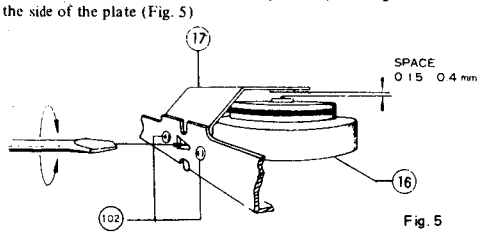


Fig. 5

TAKE-UP TORQUE

1. Set the unit in play mode.
2. Measure the take-up torque of the take-up reel (30 - 55gr) with a torque meter; alternatively, measure the pressure of the pulley (70 - 105gr) with a tension gauge.
3. If the readings do not fall within the required range, reset the adjusting spring (28) into another hole. (Fig. 2)
4. Clean the take-up reel (18) and the pulley (27) only with alcohol.

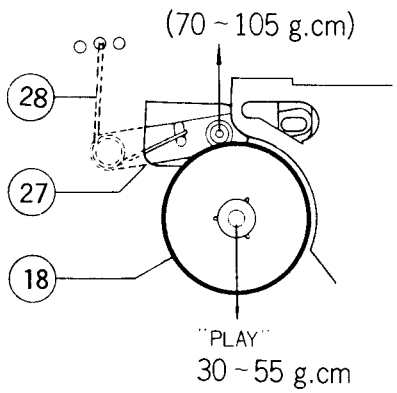


Fig. 2

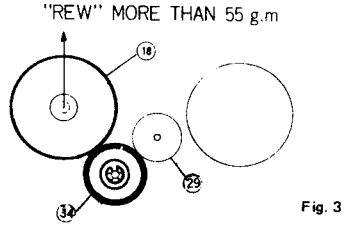


Fig. 3

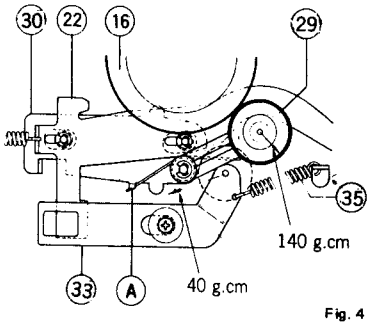


Fig. 4

ALIGNMENT PROCEDURES

›) AM ALIGNMENT

›ignal generator output: Modulation frequency 400Hz. Modulation percentage 30%. Signal level just high enough to provide meter deflection.
›etting of control knobs: Volume control at maximum. Tone control at optimum high note emphasis.
›utput meter connection: Across dummy load (4 ohms) connected thru earphone jack or the speaker.
›ower Supply: DC 7.5V, 300mA or five standard flashlight batteries

PROCEDURES	SIGNAL APPLICATION	FREQUENCY OF SIGNAL GEN.	DIAL SETTING OF RADIO	COMPONENTS TO BE ADJUSTED FOR MAXIMUM	
IF STAGES	From IRE loop	455 KHz	Lowest End	(IFT T307, & T308)	
MW OSCILLATOR	From IRE loop	505 KHz	Lowest End	MW Oscillator Coil	L116
		1650 KHz	Highest End	MW Oscillator Trimmer	Ct4
MW ANTENNA	From IRE loop	600 KHz	600 KHz	MW Antenna Coil	L109c
		1400 KHz	1400 KHz	MW Antenna Trimmer	VC1T-d
SW1 OSCILLLATOR	From IRE loop	2.2 MHz	Lowest End	SW1 Oscillator Coil	L114
		7.6 MHz	Highest End	SW1 Oscillator Trimmer	Ct3
SW1 ANTENNA	From IRE loop	2.5 MHz	2.5 MHz	SW1 Antenna Coil	L109a
		6.5 MHz	6.5 MHz	SW1 Antenna Trimmer	VC1T-c
SW2 OSCILLATOR	Thru dummy ant.	7.1 MHz	Lowest End	SW2 Oscillator Coil	L113
		22.6 MHz	Highest End	SW2 Oscillator Trimmer	Ct2
SW2 ANTENNA	Thru dummy ant.	8.5 MHz	8.5 MHz	SW2 Antenna Coil	L108
		21.0 MHz	21.0 MHz	SW2 Antenna Trimmer	Ct1

;) FM IF ALIGNMENT

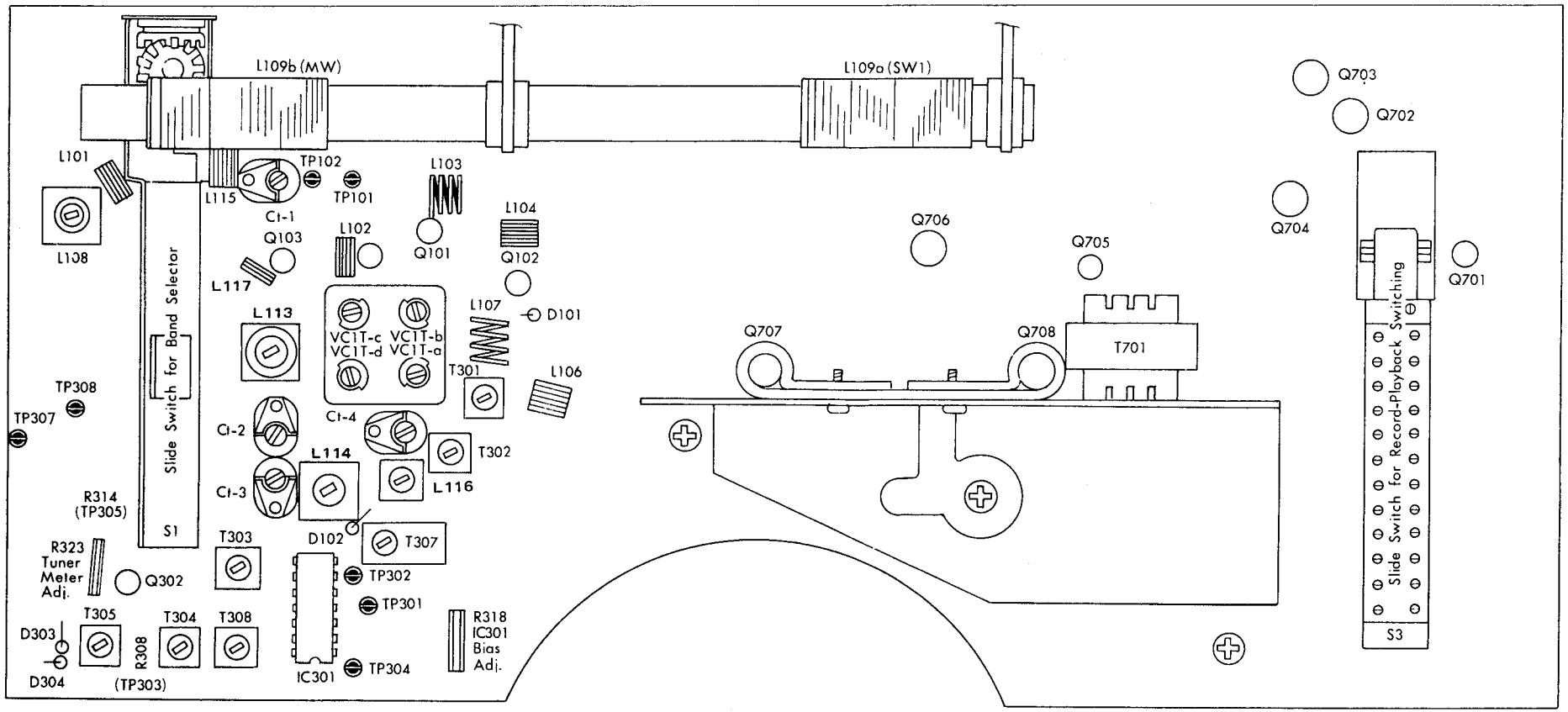
Sweep marker generator for FM IF stage adjustment (10.7 MHz)
Setting of control knobs: Volume control at minimum.
Tone control at optimum low note emphasis.
Power Suuply: DC 7.5V, 300mA or five standard flashlight batteries

PROCEDURES	ALIGNMENT FREQUENCY	TESTING EQUIPMENT CONNECTION	ADJUSTMENT
IFT T304	10.7 MHz	Connect output cable of S.M. Generator to test points, TP-101 and TP-102, and input cable thru net-work to test points, TP-303 and common Ground.	Tune T304 for maximum gain and symmetry of response curve.
IFT T303	10.7 MHz	The same as above.	Tune T303 for max. gain and symmetry of response curve.
IFT T302	10.7 MHz	The same as above	Tune T302 for max. gain and symmetry of response curve.
IFT T301	10.7 MHz	The same as above	Tune T301 for max. gain and symmetry of response curve.
IFT T306	10.7 MHz	Connect output cable of S.M. Generator to test points, TP-101 and TP-102, and input cable thru net-work to test points TP-305 and common ground.	Tune T306 for perfect symmetry and linearity of S-shape curve.

f) FM ALIGNMENT

Signal generater output: Modulation frequency 400 Hz. Frequency deviation 22.5 KHz.
Setting of control knobs: Volume control at maximum.
Tone contol at optimum high note emphasis.
Output meter connection: Across dummy load (4 ohms) connected thru earphone jack or speaker.
Power supply: DC 7.5V, 300mA or five standard flashlight batteries
Signal application: Thru dummy antenna (75 ohms) to test points, TP-101 and TP-102.

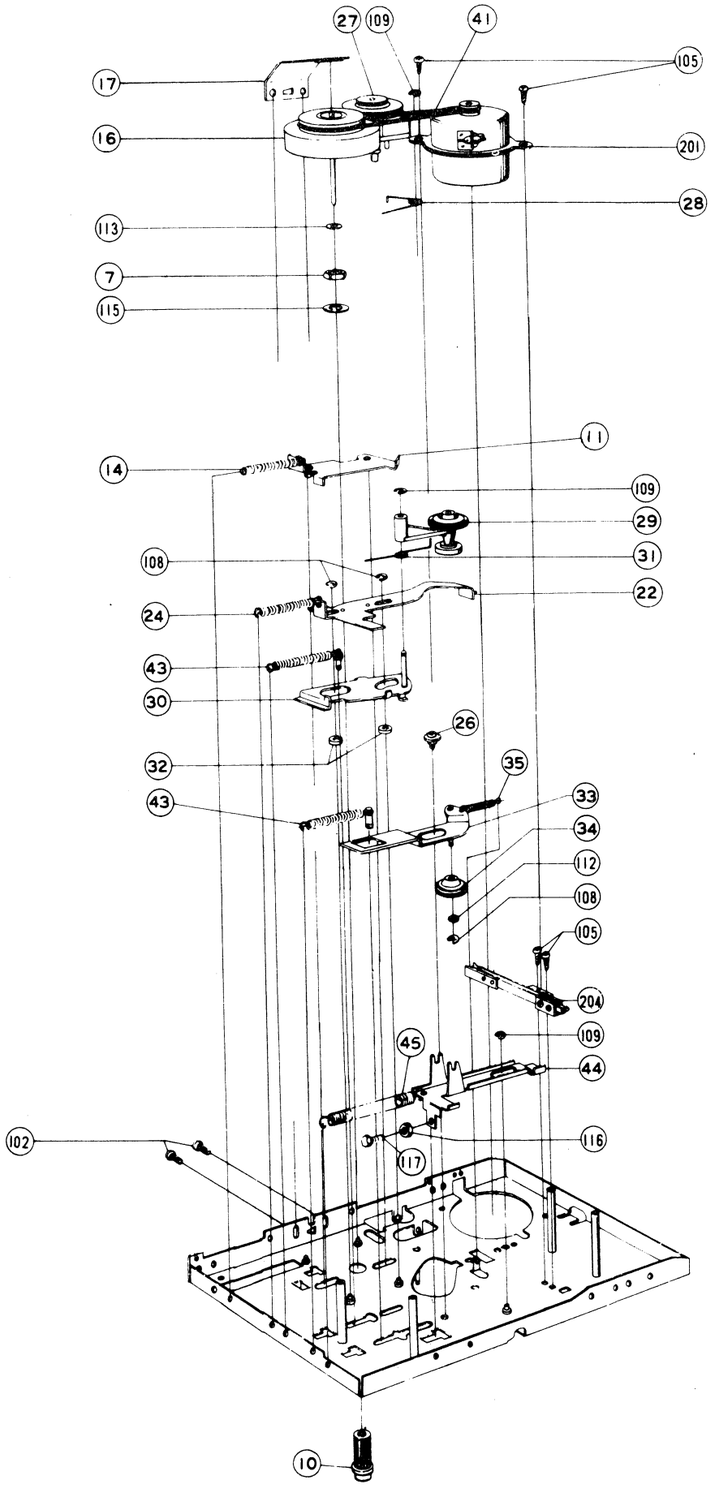
PROCEDURES	DIAL SETTING OF RADIO	FREQUENCY OF SIGNAL GEN.	ADJUST FOR MAXIMUM	DIAL SETTING OF RADIO	FREQUENCY OF SIGNAL GEN.	ADJUST FOR MAXIMUM
Oscillator	87 MHz	87 MHz	Coil L107	108 MHz	108 MHz	Trimmer VC1T-a
Antenna	90 MHz	90 MHz	Coil L103	106 MHz	106 MHz	Trimmer VC1T-b


L109b (MW)
L109a (SW1)
Q703
Q702
L101
TP102
TP101
L103
L104
L115
CT-1
Q103
L102
Q101
Q102
Q706
Q705
Q704
L108
L117
L113
VC1T-c
VC1T-d
VC1T-b
VC1T-a
L107
D101
Q707
Q708
T701
Q701
TP308
TP307
Slide Switch for Band Selector
T301
L106
CT-2
CT-4
T302
L114
L116
CT-3
R314
(TP305)
S1
T303
D102
T307
R323
Tuner
Meter
Adj.
Q302
TP302
TP301
T305
T304
T308
R318
IC301
Bias
Adj.
D303
R308
IC301
TP304
D304
(TP303)
Slide Switch for Record-Playback Switching
S3
L701
L702
Q709
R763
Bias
Osc
Adj.
S5
S6
REM. MIC. EARPH.
DIN Connector
Bias Shift Switch
PHONO-RADIO SWITCH

PARTS LIST

Key No.	Part No.	Description	Q'ty
MECHANISM			
1	141 0 3119 010 10	Chassis Assembly	1
2	141 0 7319 016 00	Cassette Pushout Sub Plate with Pins	1
3	141 2 5739 002 00	Bracket, Cassette Pushout Plate	1
4	141 2 7319 021 00	Cassette Pushout Plate	1
5	141 2 7519 005 00	Pin, Cassette Pushout Sub Plate	1
6	141 2 8519 069 00	Spring, Cassette Pushout Plate (2 used)	2
7	141 2 4179 001 00	Hex Nut, Flywheel Support Metal	1
8	141 0 7319 017 00	Base Slide Assembly	1
9	141 2 3769 007 00	Bracket, Head	1
10	141 0 5729 002 00	Metal, Flywheel Support	1
11	141 0 7319 018 00	Slide Arm Base Actuator	1
12	141 0 5419 007 00	Pressure Roller with Arm	1
13	141 2 8519 098 00	Spring, Pressure Roller and Arm	1
14	141 2 8519 065 00	Spring, Slide Base Actuator	1
15	141 2 8519 045 00	Spring, Head Adjust	1
16	141 2 5219 031 00	Flywheel with Capstan Shaft	1
17	141 0 3519 001 00	Bracket, Flywheel	1
18	141 0 5319 001 00	Reel Plate (2 used)	2
19	141 2 5369 004 00	Cap, Spindle (2 used)	2
20	141 2 4539 002 00	Washer, Spindle (2 used)	2
21	141 2 7139 002 00	Brake Plate	1
22	141 2 7319 024 00	Slide Arm, Power Switch	1
23	141 2 8529 003 00	Spring, Brake Plate	1
24	141 2 8519 012 00	Spring, Slide Arm	1
25	141 2 4219 037 00	Screw, Brake Plate	1
26	141 2 4219 038 00	Screw, Rewind Roller Arm	1
27	141 0 5519 001 00	Take-up Pulley and Arm Assembly	1
28	141 2 8519 013 00	Spring, Take-up Pulley	1
29	141 0 5519 002 00	Idler and Arm Assembly	1
30	141 0 7319 003 00	Idler Base with Pin	1
31	141 2 8519 017 00	Spring, Idler Base	1
32	141 2 8259 004 00	Roller,Idler Base (2 used)	2
33	141 0 7319 004 00	Rewind Roller Arm with Pin	1
34	141 0 5519 007 00	Rewind Roller	1
35	141 2 8519 018 00	Spring, Rewind Roller	1
36	141 0 1619 048 00	Push Button Switch Mechanism	1
37	141 0 7419 038 00	Stop Lever Assembly	1
38	141 2 8219 070 00	Senser End	1
39	141 2 7419 112 00	Stop Lever	1
40	141 2 8519 224 00	Spring, Stop Lever	1
41	141 2 5649 002 01	Drive Belt, Square Section	1
42	141 0 7319 020 00	Slide Base Actuator with Pin (2 used)	2
43	141 2 8519 068 00	Spring, Slide Base Actuator (2 used)	2
44	141 2 8429 005 00	Lever, Record/Playback Switch	1
45	141 2 8519 063 00	Spring, Record/Playback Switch Lever	1
46	141 2 7439 001 00	Stopper, Slide Base	1
47	141 2 7529 052 00	Shaft, Slide Base Stoppr	1
48	141 2 8519 062 00	Spring, Slide Base Stopper	1
49	141 2 8419 006 00	Lever, Interlock	1
50	141 2 8539 017 00	Spring, Interlock Lever	1
51	141 2 7319 058 00	Latch Plate, Cassette Door Lock	1
52	141 2 3529 023 00	Spacer, Latch Plate (2 used)	2
53	141 2 8519 064 00	Spring, Latch Plate	1
54	141 2 4219 053 00	Screw with Washr (2 used)	2
55	141 2 4219 046 00	Screw with Washer, Slide Base (2 used)	2
56	141 0 7439 001 00	Cassette Door Holder, Right	1
57	141 0 7439 002 00	Cassette Door Holder, Left	1
58	141 2 7419 013 00	Lever, Cassette Door, Left	1
59	141 2 4539 011 00	Washer, Nylon, Cassette Door (2 used)	2
60	141 2 8519 067 00	Spring, Cassette Door Lever (2 used)	2
61	141 2 4459 035 00	Rubber Cushion, Cassette Door (2 used)	2
62	141 0 1149 029 00	Cassette Door & Compartment	1
201	4 5279 701 20	Motor, DC	1
202	4 2429 701 70	Head, Record/Playback	1
203	4 2429 701 80	Head, Erase	1
204	4 2319 700 10	Switch, Power On-off	1
101	KR-11366	Screw, 2 x 4 mm, Pan Hd. Phil. (4 used) with Key No.9 and 202	4
102	KR11168	Screw, 2.6 x 5 mm, Pan Hd. Phil. (12 used), with Key No.3, 17, 36, 56 and 57	12
103		Screw, 2 x 4 mm, Bind Hd. Phil. (2 used)with Key No.203	2
104	KR-11201	Screw, 2 x 12 mm, Flat Hd. (Used with Key No. 202)	1
105	KR-11164	Screw, 2.6 x 6 mm, Self-tapping, (6 used with Key No. 50, 105 and 204)	6
106	KR-11217	Spring Washer, 2.6 mm dia., (4 used with Key No.56 and 57)	4
107	KR-11396	Washer, 4mm dia. (Used with Key No.56)	1
108	KR-11169	"C" Clamp, 1.5 mm dia., (4 used with) Key No.22, 34 and 47)	4
109	KR-11168	"C" Clamp, 2 mm dia., (6 used with Key No. 12,27,29,37,39 and 44)	6
110	KR-11364	"C" Clamp, 2.5 mm dia., (3 used with Key No. 2 and 5)	3
111	KR-11218	"C" Clamp, 3 mm dia., (Used with Key No.8)	1
112		Washer, Mylar, Rewind Roller	1
113	KR-33020	Washer, Nylon, Flywheel	1
114	KR-11362	Washer, Record/Playback Head	1
115	KR-11165	Washer, Flywheel Metal	1

NOTES: 1. Part orders must contain Model Number, Part Number and Description.
2. Unless otherwise noted, component parts indicated by parentheses in the column Q'ty are not available.
3. Ordering quantity of screws and/or resistors must be multiple of 10 pcs.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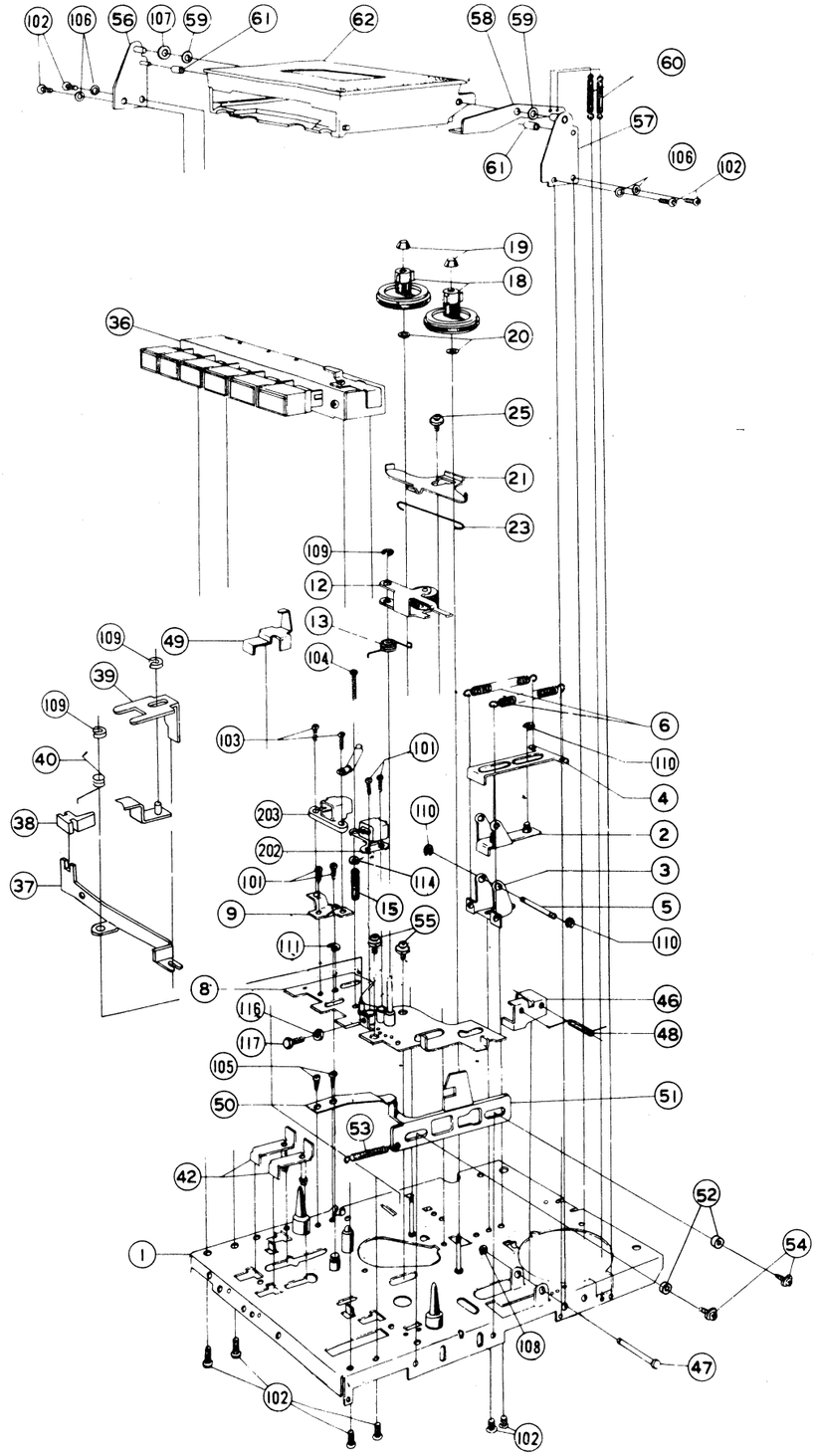
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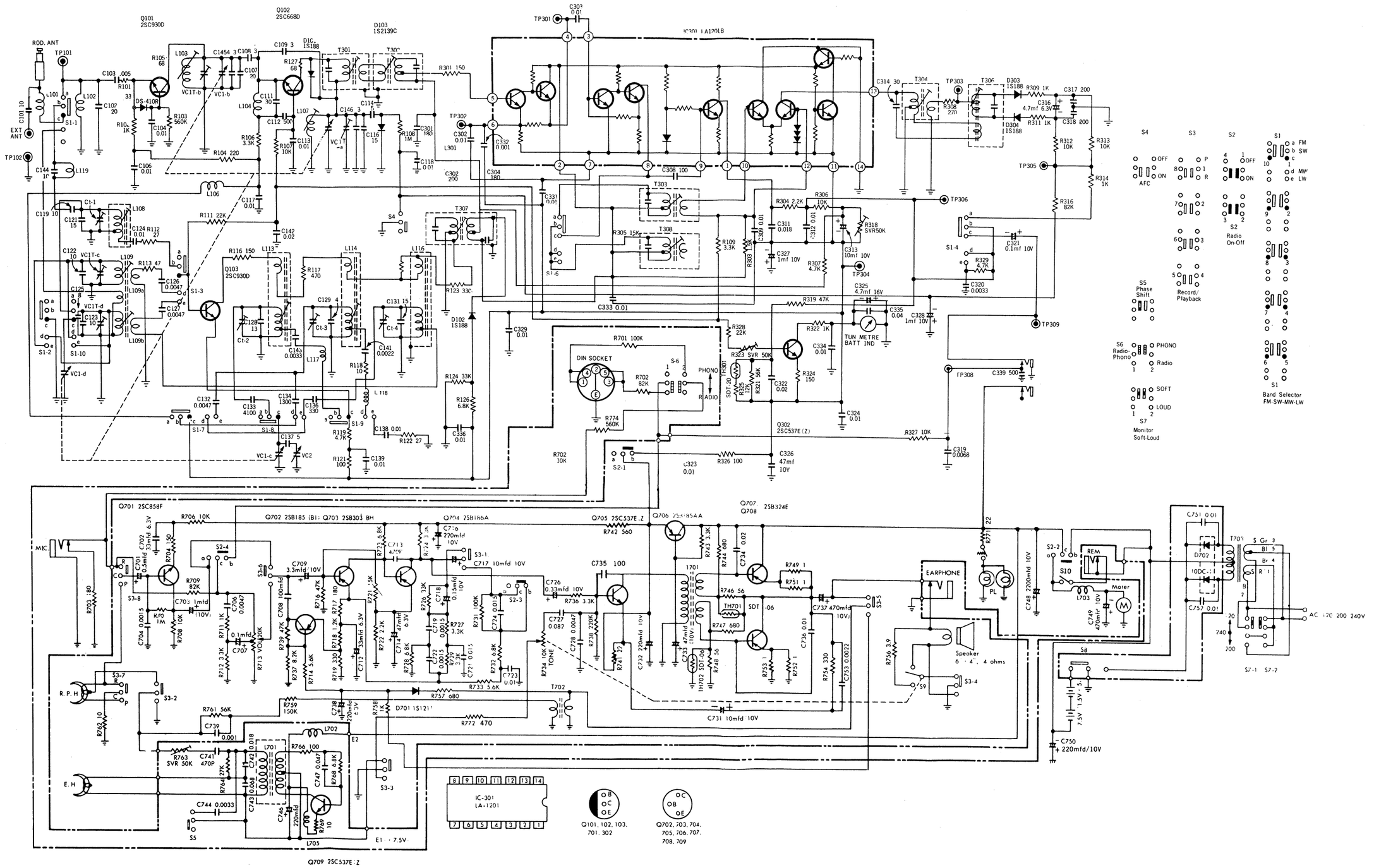
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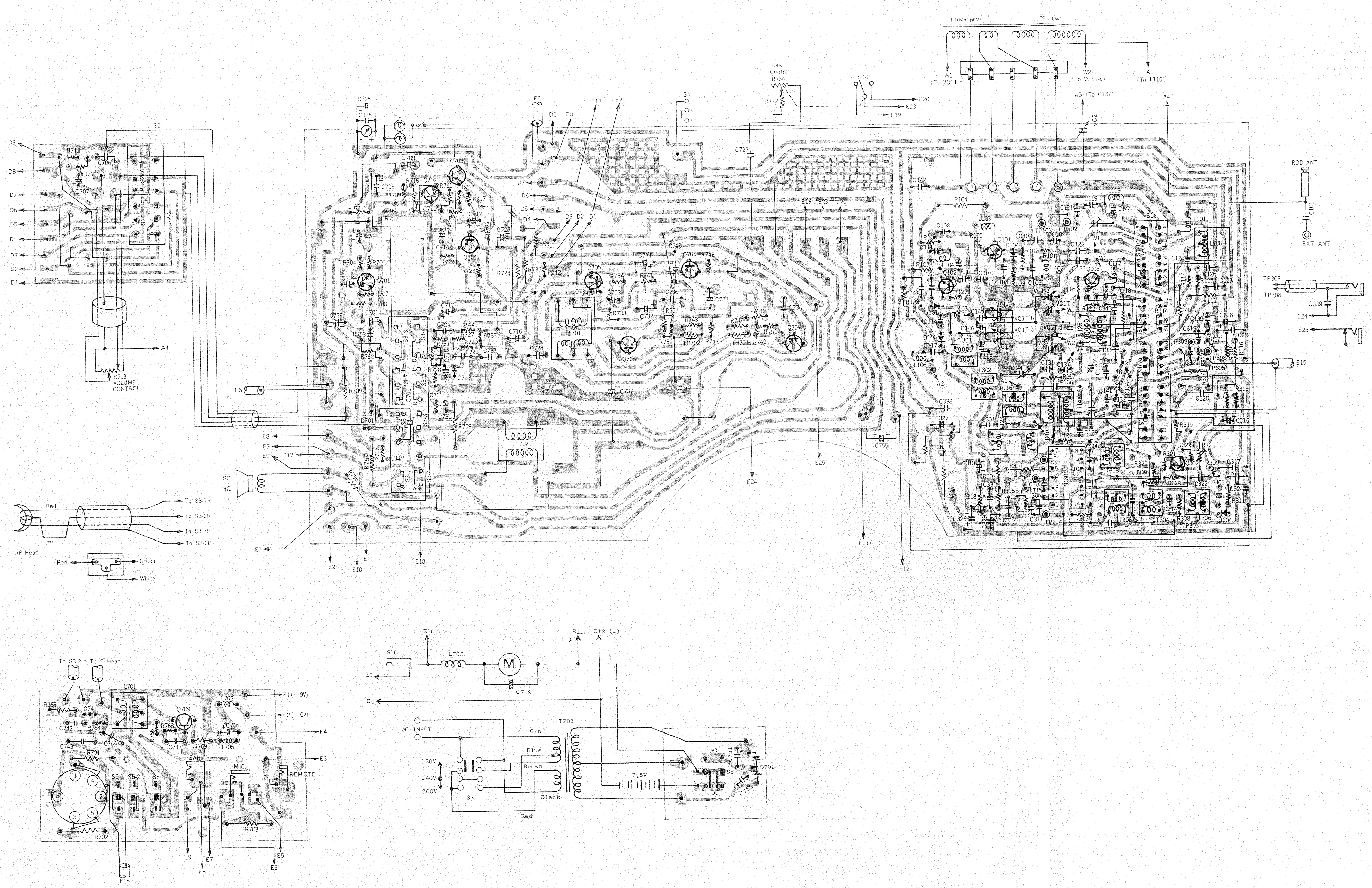
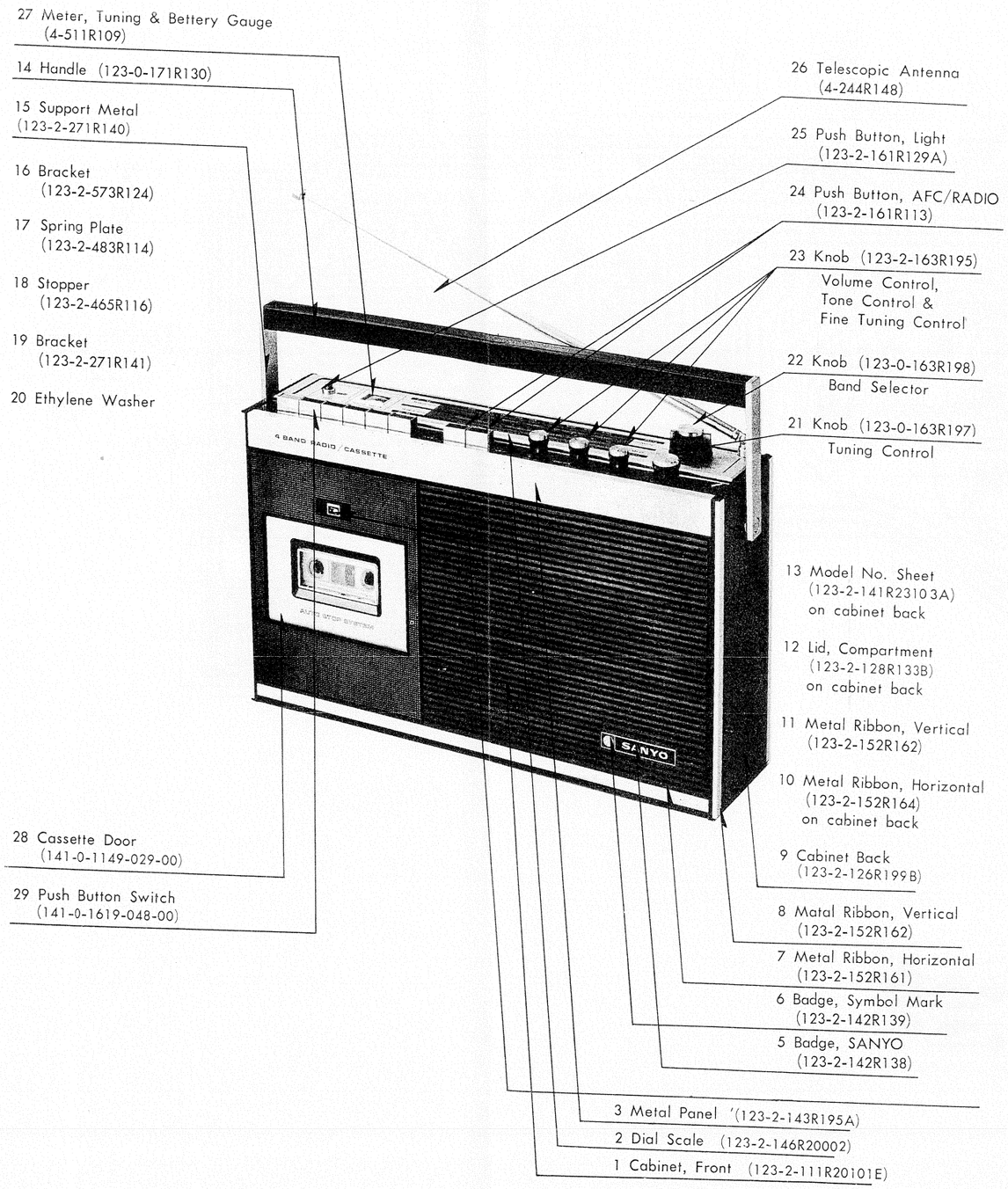
Q102 2SC668D
D103 1S2139C
IC301 LA1201B
ROD. ANT
TP101
EXT ANT
TP102
S1-1
DS-410R
TP301
TP302
TP303
TP304
TP305
TP306
TP308
TP309
T301
T302
T303
T304
T306
T307
T308
S4
S1-4
S1-6
S1-10
S1-9
S1-7
S1-8
S1-3
S1-2
VC1T-b
VC1T-c
VC1T-d
VC1-b
VC1-c
VC1-d
VC1T
VC2
Ct-1
Ct-2
Ct-3
Ct-4
L101
L102
L103
L104
L105
L106
L107
L108
L109
L109a
L109b
L110
L111
L112
L113
L114
L116
L117
L118
L119
Q103 2SC930D
D102 1S188
DIN SOCKET
S6-6
PHONO
RADIO
S6 Radio-Phono
S7 Monitor Soft-Loud
S5 Phase Shift
S4 AFC
S3 Record/ Playback
S2 Radio On-Off
S1 Band Selector FM-SW-MW-LW
TUN METRE BATT IND
Q302 2SC537E (Z)
D301 1H401
TH701 SDT-06
Q701 2SC858F
Q702 2SB185 (B)
Q703 2SB303 BH
Q704 2SB186A
Q705 2SC537E.Z
Q706 2SB186AA
Q707, Q708 2SB324E
Q709 2SC537E.Z
MIC
R.P.H
E.H
S3-1
S3-2
S3-3
S3-4
S3-5
S3-6
S3-7
S3-8
S2-1
S2-2
S2-3
S2-4
S10
S9
S8
EARPHONE
Speaker 6 · 4", 4 ohms
PL
REM
Meter
L701
L702
L703
L705
T701
T702
T703
D701 1S1211
D702
10DC-1
IC-301 LA-1201
Q101, 102, 103, 701, 302
Q702, 703, 704, 705, 706, 707, 708, 709
E1 · 7.5V
AC 120 200 240V
7.5V 1.5V · 5
C750 220mfd/10V


L109a (MW)
L109b (LW)
W1 (To VC1T-c)
W2 (To VC1T-d)
A1 (To L116)
A5 (To C137)
A4
VC2
ROD ANT
EXT. ANT.
C101
TP309
TP308
C339
E24
E25
E15
Tone Control
R734
R772
S9-2
E20
E23
E19
S4
C727
S2
D9
D8
D7
D6
D5
D4
D3
D2
D1
R713
VOLUME CONTROL
A4
E5
E8
E7
E9
E17
SP
4Ω
E1
E2
E10
E21
E18
E24
E25
E11(+)
E12
S3
S1
T701
T702
T703
IC301
RP Head
Red
To S3-7R
To S3-2R
To S3-7P
To S3-2P
Red
Green
White
To S3-2-c
To E.Head
L701
Q709
E1(+9V)
E2(−0V)
E4
E3
EAR
MIC.
REMOTE
S6-1
S6-2
S5
R703
R702
E9
E8
E7
E6
E5
E15
E10
E11 ( )
E12 (−)
S10
L703
M
C749
E3
E4
AC INPUT
Grn
Blue
Brown
Black
Red
120V
240V
200V
S7
7.5V
AC
DC
S8
C751
C752
D702


27 Meter, Tuning & Bettery Gauge (4-511R109)
14 Handle (123-0-171R130)
15 Support Metal (123-2-271R140)
16 Bracket (123-2-573R124)
17 Spring Plate (123-2-483R114)
18 Stopper (123-2-465R116)
19 Bracket (123-2-271R141)
20 Ethylene Washer
26 Telescopic Antenna (4-244R148)
25 Push Button, Light (123-2-161R129A)
24 Push Button, AFC/RADIO (123-2-161R113)
23 Knob (123-2-163R195) Volume Control, Tone Control & Fine Tuning Control
22 Knob (123-0-163R198) Band Selector
21 Knob (123-0-163R197) Tuning Control
13 Model No. Sheet (123-2-141R23103A) on cabinet back
12 Lid, Compartment (123-2-128R133B) on cabinet back
11 Metal Ribbon, Vertical (123-2-152R162)
10 Metal Ribbon, Horizontal (123-2-152R164) on cabinet back
9 Cabinet Back (123-2-126R199B)
8 Matal Ribbon, Vertical (123-2-152R162)
7 Metal Ribbon, Horizontal (123-2-152R161)
6 Badge, Symbol Mark (123-2-142R139)
5 Badge, SANYO (123-2-142R138)
3 Metal Panel (123-2-143R195A)
2 Dial Scale (123-2-146R20002)
1 Cabinet, Front (123-2-111R20101E)
28 Cassette Door (141-0-1149-029-00)
29 Push Button Switch (141-0-1619-048-00)
4 BAND RADIO / CASSETTE
SANYO

PARTS LIST

Part No.	Description	Q'ty
PACKING		
123-6-411R 427	Instruction Manual, RP 8500 SS	1
123-6-411R 496	Instruction Manual, RP 8500 AS	1
123-6-411R 427A	Instruction Manual, RP 8500 IT	1
123-6-141R 27801	Individual Carton, RP 8500 SS/AS SS/AS	1
123-6-141R 27803	Individual Carton, RP 8500 IT	1
123-6-144R 196A	Foam-Plastic Cushion, Bottom	1
123-6-144R 197B	Foam-Plastic Cushion, Top	1
	Cushion, 75 x 155mm	1
123-6-231R 104	Polypropylene Pouch, Radio Unit	1
123-6-255R 128	Polypropylene Pouch, AC Power Cord	1
123-6-453R 001D	Serial Number Sheet	1
123-6-472R 29201	Label, "SS"	1
123-6-472R 29209	Label, "AS"	1
123-6-472R 29213	Label, "IT"	1
123-6-472T 056	Caution Label, RP 8500 IT	1
123-6-472R 134	Label, RP 8500 IT	1
CABINET		
123-0-001R 026	Cabinet Assembly, RP 8500 SS	1
123-2-111R 201E	Cabinet, Front	1
123-2-146R 20002	Dial Scale, Top Plastic	(1)
123-2-143R 195A	Metal Panel, 4 BAND RADIO/CASSETTE	(1)
123-2-142R 179	Badge, Cassette Compartment	(1)
123-2-142R 138	Badge, SANYO	(1)
123-2-142R 139	Badge, Symbol Mark	(1)
123-2-152R 161	Metal Ribbon, Horizontal Strip	(1)
123-2-152R 162	Metal Ribbon, Vertical Strip	(2)
123-2-421R 114	Screw, Dial Scale mtg.	(1)
123-2-126R 199B	Cabinet, Back	(1)
123-2-152R 164	Metal Ribbon, Horizontal Strip	(1)
123-2-152R 162	Metal Ribbon, Vertical Strip	(2)
123-2-128R 133B	Lid, Compartment	(1)
123-2-141R 21303A	Model No. Sheet, RP-8500SS	(1)
	Cushion, Battery, 25 x 40 x 10t	(1)
	Adhesive Cloth, 110 x 6	(2)
	Adhesive Cloth, 140 x 6	(2)
	Adhesive Cloth, 200 x 6	(1)
	Adhesive Cloth, 70 x 6mm	(3)
123-0-001R 028	Cabinet Assembly, RP 8500 IT	1
123-2-111R 20102	Cabinet Front	(1)
123-2-141R 21303A	Model No, Sheet, RP 8500 IT	(1)
123-0-001R 027	Cabinet Assembly, RP 8500 AS	1
123-2-141R 21305A	Model No. Sheet, RP 8500 AS	(1)
123-0-171R 130	Handle	1
123-2-271R 140	Support Metal, Handle mtg.	2
123-2-573R 124	Bracket, Support Metal mtg.	2
123-2-483R 114	Spring Plate, Handle mtg.	2
123-2-465R 116	Stopper, Handle mtg.	2
123-2-271R 141	Bracket, Handle mtg.	2
	Ethylene Washer, 7.2 x 12 x 0.5t, Handle mtg.	4
123-0-163R 197	Knob, Tuning Control	1
123-0-163R 195	Knob, Volume/Tone/Fine-Tuning	3
123-0-163R 198	Knob, Band Selector	1
123-0-161R 113	Push Button, AFC/Radio	2
123-2-161R 129A	Push Button, Light	1
123-2-421R 130	Screw, Chassis mtg.	2
123-2-417R 105	Stud Nut, Tape Mechanism mtg.	1
123-2-135R 231A	Partition, Cabinet Back	1
123-2-135R 232	Mask, Slide Switch	3
123-2-417R 105	Stud Nut	1
123-2-445R 117	Rubber Cushion, Indicator	1
123-6-424R 144	Battery Sheet	1
123-2-482R 112	Spring Wire, Stereocast mtg.	1
123-2-310R 316A	Bracket, Steeeeocast mtg. Clip	1

Schematic Location	Part No.	Description	Q'ty
CHASSIS			
	123-2-311R 161E	Plastic Chassis	1
	123-2-464R 139A	Plastic Bracket, Battery Receptacle mtg.	1
	123-2-464R 138A	Plastic Bracket, Socket,mtg.	1
	123-2-245R 137A	Back Ground, Dial Scale	1
	123-0-511R 155A	Pointor, Dial	1
	123-0-566R 124	Tuning Shaft	1
	123-2-415R 002	Hex. Nut, Tuning Shaft	1
	123-2-538R 109A	Drum	1
	123-2-465R 110B	Stopper	1
		Screw, Hex. Head, 2.6 x 10mm, Drum mtg.	1
	123-2-376R 106	Spacer	1
	141-2-661T 160	Pulley	4
	141-2-661T 159	Pulley	1
	123-2-567R 105	Shaft, Pulley	2
	123-2-567R 118	Shaft, Pulley	1
	123-2-567R 109	Shaft, Pulley	1
	123-2-481R 115	Tension Coil, Dial Cord	1
		Dial Cord, 0.5mm dia. Tetron, 1700mm	1
	132-2-445R 002	Rubber Cushion	1
	123-2-445R 014	Rubber Cushion	2
	123-2-369R 137	Bracket, Antenna Coil	2
		Cushion, 10 x 30 x 1t, Antenna Coil	2
	123-2-246R 116	Cushion, Indicator	1
		Rubber Cushion, 6 x 14 x 30, Shield Plate	1
	123-2-135R 144	Mask, Band Selector Switch	1
		Fiber Sheet, Remote Socket	1
	123-2-464R 110B	Fixer, AC Cord Retaining	1
	123-2-464R 140A	Fixer, AC Cord	1
	4-226R 272C	Printed Circuit Board, Main	1
	4-226R 271E	Printed Circuit Board, Bias Oscillator	1
	4-226R 269	Printed Circuit Board, Radio On-off	1
	4-226R 270	Printed Circuit Board, Rectifier	1
COILS & TRANSFORMERS			
L101,104, 117,119, 705	4-265R 050A	VHF Coil, 6½ Turns	
L102	4-265R 003	VHF Coil, 3½ Turns	
L103	4-265R 113A	VHF Coil, 3½ Turns	
L106	4-265R 112	VHF Coil, 16½ Turns	
L107	4-265R 128	VHF Coil, 3½ Turns	
L108	4-257R 247	Antenna Coil, SW2	
L109	4-257R 24801	Antenna Coil, MW & SW1	
L113	4-258R 216	Oscillator Coil, SW2	
L114	4-258R 118	Oscillator Coil, SW1	
L116	4-258R 215	Oscillator Coil, MW	
L118	4-265R 127	VHF Coil, 10½ Turns	
L701	4-258R 171	Oscillator Coil, Recording Bias	
L702	4-253T 01007	Choke Coil, Bias Trap	
L703	4-253R 112	Choke Coil, Motor Noise Filter	
T301	4-256R 20810	IF Transformer, FM	
T302	4-256R 20910	IF Transformer, FM	
T303	4-256R 158	IF Transformer, FM	
T304	4-256R 15110	IF Transformer, FM	
R306	4-256R 02310	IF Transformer, FM	
T307	4-256R 80710	IF Transforemr, AM	
T308	4-256R 17210	IF Transformer, AM	
T701	4-254R 119	Transformer, Audio Driver	
T702	4-254R 534	Transformer, Audio Output	
T703	4-251R 174	Transformer, Voltage Step-down, RP 8500SS RP 8500IT 120/200/240V Input	
T703	4-251R 254	Transformer, Voltage Step-down, RP 8500AS 240V Input	

Schematic Location	Part No.	Description
SEMICONDUCTORS		
Q101		Transistor, 2SC668D (RF Blue Rank)
Q102		Transistor, 2SC930C
Q103		Transistor, 2SC930D
Q302,705, 709		Transistor, 2SC537E (Z)
Q701		Transistor, 2SC858F
Q702		Transistor, 2SB185 (Black Rank)
Q703		Transistor, 2SB303BH
Q704		Transistor, 2SB186A
Q706		Transistor, 2SB185AA
Q707,708		Transistor, 2SB324E (a Pair for Pushpull)
IC301		Integrated Circuit, LA1201B
D101		Diode, 1S188FM
D102		Diode, 1S188AM
D103		Diode, 1S1239C, Variable Capacitance
D104		Diode, DS-410R/DS-442
D303,304		Diode, 1S188D, FM Discriminator
D701		Diode, 1S1211
D702		Diode, 10DC-1, Silicon Rectifier
TH301		Thermistor, SDT-20
TH701,702		Thermistor, SDT-06
CONTROLS		
VC-1	4-224R 081	Variable Capacitor, Main Tuning
VC-2	4-224R 207	Variable Capacitor, Fine Tuning
Ct1,2,3,4	4-224R 014	Trimmer Capacitor
R318,323	4-222R 004	Mini-Pot, 50K
R713	4-222R 175	Variable Resistor, 20K, Volume Control
R734	4-222R 174	Variable Resistor, 10K, Tone Control
R763	4-222R 004	Mini-Pot, 50K, Recording Bias Adjust
S1	4-231R 306	Rotary Switch, Band Selector
S2	4-231R 627	Push Switch, Radio Selector
S3	4-231R 169	Slide Switch, Record-Playback Switch
S4	4-231R 626	Push Switch, AFC
S5,6,8	4-231R 125	Slide Switch
S7	4-231R 142	Slide Switch, 120V/200V/240V Selector
MISCELIANEOUS		
	4-244R 148	Telescopic Rod Antenna
	123-2-515R 10201	Tape Mechanism Assembly
	4-511R 109	Indicator, Tuning & Battery Gauge
	4-151R 187	Speaker, 4" x 6", 4 ohms
	4-152R 104	Earphone
	4-153R 10401	Microphone
	4-241T 049	Cassette Tape, C-12 Type
	4-243R 12401A	AC Cord, 250V 1800mm, RP 8500 SS
	4-243R 12498A	AC Cord, 250V 1800mm, RP 8500 IT
	4-243R 13301	AC Cord, 1800mm, RP 8500 AS
	4-612R 10791	Pilot Bulb, 5V 60mA
	4-235R 177	Socket, Mike, Earphone & Remote
	4-235R 165	Socket, Stereocast
	4-235T 0260	Socket, DIN
	4-235R 024	Socket, EXT ANT
	4-472R 002	Contact Tip, Antenna
	123-2-382R 006A	Tip Receptacle, Antenna
	123-2-368R 101A	Heat Sink
	123-2-368R 128	Heat Sink
	123-2-336R 146A	Terminal Battery, Positive
	123-2-336R 196	Terminal Battery, Negative
	123-2-472R 108	Lug Terminal, Telescopic Antenna
	123-2-482R 101A	Spring Wire, Tuning Capacitor Grounding
	123-2-382R 130	Terminal, Pilot Bulb mtg.
	123-2-382R 107	Terminal, Pilot Bulb
	123-2-472R 006	Lug, Lead Clamp
	123-2-382R 112	Terminal, Junction Point

Schematic Location	Part No.	Description
MISCELIANEOUS		
	123-2-464T 074	Connector
	123-2-382R 00291	Test Point, White
	123-2-382R 00292	Test Point, Blue
	4-235R 11801	Plug Adaptor, Siemens, RP 8500 SS/IT
	4-235R 11802B	Plug Adaptor, England, RP 8500 SS
	123-2-322R 124A	Shielding Screen, Foiled Paper

CAPACITORS				
C101,119,123, 144	R-CKD100K	Ceramic	10 pF	±10% 50V
C102	R-CKD200K	Ceramic	20 pF	±10% 50V
C103	R-CKD502Z	Ceramic	0.005 mfd	+80% 50V
C104,106,117, 118,139,302, 309,323,324, 329,331,333, 334,336	R-CKD103Z	Ceramic	0.01 mfd	+80% 50V
C107	R-CKD200J	Ceramic	20 pF	± 5% 50V
C108	R-CKD030K	Ceramic	3 pF	±0.5pF 50V
C109	R-CKD030K	Ceramic N750	3 pF	±0.5pF 50V
C111,314	R-CKD300K	Ceramic	30 pF	±10% 50V
C112	R-CKD501K	Ceramic	500 pF	±10% 50V
C113,303	R-CKD103Z	Ceramic(min)	0.01 mfd	+80% 50V
C114	R-CKD050K	Ceramic N750	5 pF	±10% 50V
C116,131	R-CKD150K	Ceramic	15 pF	±10% 50V
C121	R-CKD150K	Ceramic	15 pF	±10% 50V
C122,137	R-CKD050K	Ceramic	5 pF	±10% 50V
C124,138,312	R-CQS103M	Mylar	0.01 mfd	±20% 50V
C126,127,132	R-CQS472M	Mylar	0.0047 mfd	±20% 50V
C128	R-CKD130K	Ceramic	13 pF	±10% 50V
C129	R-CKD040K	Ceramic	4 pF	± 0.5% 50V
C133	R-CQT412J	Styrol	4100 PF	± 5% 50V
C134	R-CQT132J	Styrol	1300 pF	± 5% 50V
C136	R-CQT331J	Styrol	330 pF	± 5% 50V
C141	R-CQS222M	Mylar	0.0022 mfd	±20% 50V
C142,322	R-CKD203Z	Ceramic	0.02 mfd	+80% 50V
C143	R-CQS332M	Mylar	0.0033 mfd	±20% 50V
C301,308,735	R-CKD101K	Ceramic	100 pF	±10% 50V
C311	R-CQS183M	Mylar	0.018 mfd	±20% 50V
C313	R-C9244-2	Electrolytic	10 mfd	10V
C316,325	R-C9882-2	Electrolytic	4.7 mfd	6.3V
C317,318,332	R-CKD102Z	Ceramic	0.001 mfd	+80% 50V
C319	R-CQS682M	Mylar	0.0068 mfd	±20% 50V
C321	R-C9126	Electrolytic	0.1 mfd	10V
C326	R-C9903-2	Electrolytic	47 mfd	10V
C327	R-C9115	Electrolytic	1 mfd	10V
C328	R-C9203-2	Electrolytic	1 mfd	10V
C335	R-CKD403Z	Ceramic	0.04 mfd	+80% 50V
C701	R-C9116	Electrolytic	0.5 mfd	10V
C702,712	R-C9881-2	Electrolytic	33 mfd	6.3V
C703	R-C9115	Electrolytic	1 mfd	10V
C704,719,722	R-CQS152M	Mylar	0.0015 mfd	±20% 50V
C706	R-CQS472M	Mylar	0.0047 mfd	±20% 50V
C707	R-C9126	Electrolytic	0.1 mfd	10V
C708	R-C9880-2	Electrolytic	100 mfd	6.3V
C709	R-C9221-2	Electrolytic	3.3 mfd	10V
C713,741	R-CQS471M	Mylar	470 pF	±20% 50V
C714	R-C9928-2	Electrolytic	47 mfd	6.3V
C716,732,746	R-C9879-2	Electrolytic	220 mfd	10V
C717,731	R-C9244-2	Electrolytic	10 mfd	10V
C718	R-C9968	Electrolytic	0.15 mfd	10V
C721,724	R-CQS153M	Mylar	0.015 mfd	±20% 50V
C723,734,736 751,752	R-CQS103M	Mylar	0.01 mfd	±20% 50V
C726	R-C9904	Electrolytic	0.33 mfd	10V
C727	R-CQS823M	Mylar	0.082 mfd	±20% 50V
C728	R-CQS472M	Mylar	0.0047 mfd	±20% 50V
C733	R-C9903-2	Electrolytic	47 mfd	10V
C737,C749	R-C9905-2	Electrolytic	470 mfd	10V
C738	R-C9875-2	Electrolytic	220 mfd	6.3V

PARTS LIST

Schematic Location	Part No.	Description
CAPACITORS		
C739	R-CQS102M Mylar	0.001 mfd ±20% 50V
C742	R-CQS183M Mylar	0.018 mfd ±20% 50V
C743	R-CQS683M Mylar	0.068 mfd ±20% 50V
C744	R-CQS332M Mylar	0.0033 mfd ±20% 50V
C747	R-CQS473M Mylar	0.047 mfd ±20% 50V
C748	R-C9930-2 Electrolytic	2200 mfd 10V
C750	R-C9883-2 Electrolytic	4.7 mfd 16V
C753	R-CQS222M Mylar	0.0022 mfd ±20% 50V
RESISTORS		
R101	R-R330K	33 ohms ±10% 1/4W
R102,309,311,314, 322	R-R102K	1K ohms ±10% 1/4W
R103	R-R564K	560K ohms ±10% 1/4W
R104	R-R221K	220 ohms ±10% 1/4W
R106,109	R-R332K	3.3K ohms ±10% 1/4W
R107,306,312,313, 321,327	R-R103K	10K ohms ±10% 1/4W
R108	R-R105K	1M ohms ±10% 1/4W
R111,328	R-R223K	22K ohms ±10% 1/4W
R112,122	R-R270K	27 ohms ±10% 1/4W
R113	R-R470K	47 ohms ±10% 1/4W
R116	R-R151K	150 ohms ±10% 1/4W
R117	R-R471K	470 ohms ±10% 1/4W
R118	R-R100K	10 ohms ±10% 1/4W
R119,307	R-R472K	4.7K ohms ±10% 1/4W
R121,326	R-R101K	100 ohms ±10% 1/4W
R123	R-R331K	330 ohms ±10% 1/4W
R124	R-R333K	33K ohms ±10% 1/4W
R126	R-R682K	6.8K ohms ±10% 1/4W
R127	R-R680K	68 ohms ±10% 1/4W
R301,324	R-R151K	150 ohms ±10% 1/4W
R303	R-R152K	1.5K ohms ±10% 1/4W
R304	R-R222K	2.2K ohms ±10% 1/4W
R308	R-R271K	270 ohms ±10% 1/4W
R316	R-R823K	82K ohms ±10% 1/4W
R318	R-R11010	50K ohms Mini-pot,
R319	R-R473K	47K ohms ±10% 1/4W
R323	R-R11010	50K ohms ±10% 1/4W
R701,731	R-R104K	100K ohms ±10% 1/4W
R702,709	R-R823K	82K ohms ±10% 1/4W
R703	R-R181K	180 ohms ±10% 1/4W
R704	R-R151K	150 ohms ±10% 1/4W
R706,708	R-R103K	10K ohms ±10% 1/4W
R711,758	R-R102K	1K ohms ±10% 1/4W
R712,724,727,729, 736,743	R-R332K	3.3K ohms ±10% 1/4W
R713	4-222R175	20K ohms, Volume Control
R714,733	R-R562K	5.6K ohms, ±10% 1/4W
R716,739	R-R473K	47K ohms ±10% 1/4W
R717	R-R181K	180 ohms ±10% 1/4W
R718	R-R122K	1.2K ohms ±10% 1/4W
R719,754	R-R331K	330 ohms ±10% 1/4W
R721	R-R153K	15K ohms ±10% 1/4W
R722	R-R222K	2.2K ohms ±10% 1/4W
R723,728,732,768	R-R682K	6.8K ohms ±10% 1/4W
R726	R-R333K	33K ohms ±10% 1/4W
R734	4-222R174	10K ohms Tone Control
R738	R-R224K	220K ohms ±10% 1/4W
R741	R-R220K	22 ohms ±10% 1/4W
R742	R-R561K	560 ohms ±10% 1/4W
R744,747,757	R-R681K	680 ohms ±10% 1/4W
R746,748	R-R560K	56 ohms ±10% 1/4W
R749,751,752,753	R-R010K	1 ohm ±10% 1/4W
R756	R-R3N9K	3.9 ohms ±10% 1/4W
R759	R-R154K	150K ohms ±10% 1/4W
R761,321	R-R563K	56K ohms ±10% 1/4W
R762,769	R-R100K	10 ohms ±10% 1/4W
R763	R-R11010	50K ohms, Mini-pot
R764	R-R273K	27K ohms, ±10% 1/4W
R766	R-R101K	100 ohms ±10% 1/4W
R771	R-R220K	22 ohms ±10% 1/2W
R772	R-R471K	470 ohms ±10% 1/4W
R707	R-R105K	1M ohms ±10% 1/4W
R737,330	R-R822K	8.2K ohms ±10% 1/4W
R325	R-R123K	12K ohms ±10% 1/4W

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18-2, Keihan-hondori,
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